

Date: Wednesday, 3/14/2007 12:23:51 PM  
 User: Kim Johnston

## Process Sheet

|                       |  |                  |                     |
|-----------------------|--|------------------|---------------------|
| Customer              | : CU-DAR001 Dart Helicopters Services            | Drawing Name     | : SKIDTUBE ASSEMBLY |
| Job Number            | : 31181  |                  |                     |
| Estimate Number       | : 10022  |                  |                     |
| P.O. Number           | : <i>N/A</i>                                     | Part Number      | : D205634011        |
| This Issue            | : 3/14/2007 S.O. No. : <i>N/A</i>                | Drawing Number   | : N/A               |
| Prsht Rev.            | : NC   | Project Number   | : N/A               |
| First Issue           | : <i>N/A</i> Type : LANDING GEAR                 | Drawing Revision | : N/A               |
| Previous Run          | : 31180  | Material         | : <i>N/A</i>        |
| Written By            | : <i>[Signature]</i>                             | Due Date         | : 4/6/2007          |
| Checked & Approved By | : <i>[Signature]</i>                             | Qty:             | 1 Um: Each          |
| Comment               | : Est Rev: P 02.08.28 Removed QC5 from Step 5 KJ |                  |                     |

## Additional Product

Job Number:



|         |                       |               |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

|     |    |                  |
|-----|----|------------------|
| 1.0 | DC | DOCUMENT CONTROL |
|-----|----|------------------|



Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP D205-634-011

CHG004

*07.03.23* ①

|     |        |                    |
|-----|--------|--------------------|
| 2.0 | 31181A | SKID TUBE ASSEMBLY |
|-----|--------|--------------------|



Comment: Sub-Component SKID TUBE ASSEMBLY

D205-634-041 B *B30182A**7/4/18**SA*

|     |             |                       |
|-----|-------------|-----------------------|
| 3.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
|-----|-------------|-----------------------|



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

|     |        |                         |
|-----|--------|-------------------------|
| 4.0 | K10003 | D205-634-011 Saddle Kit |
|-----|--------|-------------------------|



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

|     |              |                        |                |
|-----|--------------|------------------------|----------------|
| Qty | Part Number  | Description            | Batch          |
| 1   | K10003       | Saddle Kit             | <i>B30182</i>  |
| 1   | D205-634-041 | Skidtube Assembly(ref) | <i>B31181A</i> |

*7/4/18**SA*

|     |     |                                    |
|-----|-----|------------------------------------|
| 5.0 | QC4 | INSPECT 100% KITS FOR COMPLETENESS |
|-----|-----|------------------------------------|



Comment: INSPECT 100% KITS FOR COMPLETENESS

*[Signature]*  
*07/4/18* ①

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/04/19

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |           |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng |           | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:23:51 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKIDTUBE ASSEMBLY

Job Number: 31181

Part Number: D205634011

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-634-011

Location: NEW

07/4/18 (1)

7.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07/04/19 (1)

Job Completion



U 07-04-18

B 31181 A

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |                |  |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|----------------|--|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B      |  | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign &<br>Date |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:24:21 PM  
 User: Kim Johnston

## Process Sheet

|                       |  |                  |                      |
|-----------------------|--|------------------|----------------------|
| Customer              | : CU-DAR001 Dart Helicopters Services  | Drawing Name     | : SKID TUBE ASSEMBLY |
| Job Number            | : 31181A   |                  |                      |
| Estimate Number       | : 10023  |                  |                      |
| P.O. Number           | : <i>N/A</i>   | Part Number      | : D205634041         |
| This Issue            | : 3/14/2007 S.O. No. : <i>N/A</i>  | Drawing Number   | : D2580 REV C        |
| Prsht Rev.            | : NC   | Project Number   | : N/A                |
| First Issue           | : <i>N/A</i> Type : LANDING GEAR   | Drawing Revision | : C                  |
| Previous Run          | : 31180A   | Material         | : <i>N/A</i>         |
| Written By            | : _____  | Due Date         | : 4/6/2007           |
| Checked & Approved By | : <i>07.03.14</i>  | Qty:             | 1 Um: Each           |
| Comment               | : Est Rev: N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30 KJ<br>Est Rev. O 06.02.28 Added paperwork EC |                  |                      |

## Additional Product

Job Number:



|         |                       |               |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

|     |    |                  |
|-----|----|------------------|
| 1.0 | DC | DOCUMENT CONTROL |
|-----|----|------------------|



Comment: DOCUMENT CONTROL

Photocopy D205-634 bluefile &amp; type labels per PPP D205-634 CHG001

*N/A*

|     |           |                        |
|-----|-----------|------------------------|
| 2.0 | D25001190 | Ext'n -I' Beam Tube 4" |
|-----|-----------|------------------------|



Comment: Qty.: 1.0400 Each(s)/Unit Total : 1.0400 Each(s)

Pick:

|     |             |                     |               |
|-----|-------------|---------------------|---------------|
| Qty | Part Number | Description         | Batch         |
| 1   | D2500-1-190 | Skid Tube Extrusion | <i>B29602</i> |

*Job 7-3-26*

|     |       |         |
|-----|-------|---------|
| 3.0 | D2596 | 205 Web |
|-----|-------|---------|



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

|     |             |             |                |
|-----|-------------|-------------|----------------|
| Qty | Part Number | Description | Batch          |
| 1   | D2596       | 205 Web     | <i>B 31213</i> |

*Job 7-3-26*

|     |                |                         |
|-----|----------------|-------------------------|
| 4.0 | LANDING GEAR 1 | LANDING GEAR RESOURCE 1 |
|-----|----------------|-------------------------|



Comment: LANDING GEAR RESOURCE 1

- 1- Inspect mat'l D2500-1-190 for damage
- 2-Cut D2500-1-190 per Dwg D2580 if necessary Deburr ends
- 3-Acid etch and Alodine tube per QSI 005 4.1
- 4-Drill pilot holes using drill jig DT 8149(Do not use cutting fluid)

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |                |  |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|----------------|--|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B      |  | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign &<br>Date |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |
|      |      |                                  |                      |                                 |                |  |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:24:21 PM  
User: Kirh Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 31181A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5-Open holes to 0.500" as per Dwg D2580 without cutting fluid

6-Countersink holes as per Dwg D2580 without cutting fluid

7-Deburr and blow out all chips from inside of tube

8-Bond web in place per QSI 015. Allow 12 Hrs. cure time before cutting

Pick:

Qty Part Number Description Batch

A/R Sikaflex-291 M103497

Sikaflex expire date: 7-10-1

Start Time: 9:00 Date: 7-3-26

Fin Time: 1:30pm Date: 7-3-28 EL

50 7-3-26

5.0

BENDING

BENDING MACHINE



Comment: BENDING MACHINE

1-Bend as per program D2580.C on CNC Bender and Folio FT009

2-Cut tubes as per Dwg. D2580

EL 7-3-28

6.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Deburr ends after cutting. Remove alodine from around holes

JB 7-3-29

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

BE 07-03-29

8.0

D25763

Step (Machining Detail)



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2576-3

Step

BE 07-03-29

BE 07-03-29

9.0

D2579

Crossbolt Spacer.



Comment: Qty.: 20.0000 Each(s)/Unit Total : 20.0000 Each(s)

Pick:

Qty Part Number Description Batch

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |                |                           |                       |                          |
|      |      |                                  |                      |                                 |                |                           |                       |                          |
|      |      |                                  |                      |                                 |                |                           |                       |                          |

NOTE: Date & initial all entries



Date: Wednesday, 3/14/2007 12:24:21 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 31181A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description:

20 D2579 Spacers

*B-30220 BE 07-03-29*

10.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Prepare tube for welding D2576-3 Step Remove alodine as required.

*BE 07-03-29*

2-Weld step D2576 as per Dwg. D2580 and QSI 004

A/R Aluminum Rod

*m103317 BE 07-03-29*

3-Weld crossbolt spacers D2579 as per Dwg. D2580 and QSI 004.

For D2579 spacers, weld one side, pass 3/8" drill, weld other side, pass 3/8" drill

A/R Aluminum Rod

*m103317 BE 07-03-29*

4-Grind welds as per Dwg D2580 Grind flush ridge made from bending

*fm 07-03-29*

5-Drill holes for wearplates using DT 8217 Open holes to 19/64", adjust stopper not to hit web. Deburr

*fm 07-04-02*

6-Counterbore crossbolt spacers to 7/16" ID x 1.0" deep as per Dwg D2580, Deburr holes

*fm 07-04-02*

7-Drill pilot holes for aft cap using DT 8215 Open holes to #6 Drill bit. Deburr

*fm 07-04-02*

8-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

*fm 07-04-02*

11.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*07/04/03*

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*07/04/03*

13.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Pressure wash as per QSI 005

*sl*

*07-04-10*

*(2)*

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |  |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|--|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |  |
|      |      |                    |  |    |      |     |                                     |                          |  |
|      |      |                    |  |    |      |     |                                     |                          |  |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |           |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng |           | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:24:21 PM

User: Kirn Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 31181A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

POWDER COATING

POWDER COATING



M103706



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

F&amp;L

07/04/10 ①

15.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



①

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

M-H

07/04/11

16.0

D25771

Wearplate Fwd-



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

| Qty | Part Number | Description |
|-----|-------------|-------------|
| 1   | D2577-1     | Wearplate   |

Batch

B29994

17.0

D25773

Wearplate Aft



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

| Qty | Part Number | Description |
|-----|-------------|-------------|
| 1   | D2577-3     | Wearplate   |

Batch

B29960

18.0

D25775

Wearplate, Centre



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

| Qty | Part Number | Description |
|-----|-------------|-------------|
| 1   | D2577-5     | Wearplate   |

Batch

B30879

19.0

ALS71032130

Insert



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

| Qty | Part Number   | Description |
|-----|---------------|-------------|
| 44  | ALS7-1032-130 | Inserts     |

Batch

M103495

F&amp;L 07/04/11 ①

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |           |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng |           | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:24:21 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 31181A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description :

20.0

AN960JD10L

Washer



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

| Qty | Part Number | Description | Batch   |
|-----|-------------|-------------|---------|
| 44  | AN960JD10L  | Washer      | m102832 |

21.0

AN34A

Bolt



Comment: Qty.: 44.0000 Each(s)/Unit Total : 44.0000 Each(s)

Pick:

| Qty | Part Number | Description | Batch   |
|-----|-------------|-------------|---------|
| 44  | AN3-4A      | Bolt        | m100857 |

22.0

D25941

Plug



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

plug

Batch: B30140

23.0

D25943

O-Ring



Comment: Qty.: 16.0000 Each(s)/Unit Total : 16.0000 Each(s)

o-ring

Batch: B27168

24.0

D2855

Cap



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Cap

Batch: B27488

25.0

AN35A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Bolt

Batch: m15205

F&L

07/04/11 ①

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |  |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|--|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |  |
|      |      |                    |  |    |      |     |                                     |                          |  |
|      |      |                    |  |    |      |     |                                     |                          |  |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 07/04/19

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |           |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng |           | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |

NOTE: Date & initial all entries

Date: Wednesday, 3/14/2007 12:24:21 PM  
User: Kirt Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SKID TUBE ASSEMBLY

Job Number: 31181A

Part Number: D205634041

Job Number:



Seq. #:

Machine Or Operation:

Description:

26.0

AN960JD10L

Washer



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Washer

Batch:

*m 102832*

*FL*

*07/04/11 ①*

27.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Install inserts & wearplates as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates

A/R Sikaflex-291

*m 103497*

Sikaflex expire date: *07/10*

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

*m 103497*

Sikaflex expire date: *07/10*

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

*M 103707*

Batch:

*m-l 07/04/16 ①*

28.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

29.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D205-634-041

Location:

PPP Rev:

*PPP B 31181*

*07/04/18 ①*

30.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



*07/04/18 ①*  
*U 07-04-18*

| W/O: |      | WORK ORDER CHANGES |  |    |      |     |                                     |                          |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   |  | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |  |    |      |     |                                     |                          |
|      |      |                    |  |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                      |                                 |           |                |                           |                       |                          |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action    |                                 | Section B |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng | Action Description<br>Chief Eng |           | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |
|      |      |                                  |                      |                                 |           |                |                           |                       |                          |

NOTE: Date & initial all entries





|                               |                                |   |                        |
|-------------------------------|--------------------------------|---|------------------------|
| DESIGN<br><i>[Signature]</i>  | DRAWN BY<br><i>[Signature]</i> | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br><i>[Signature]</i> | APPROVED<br><i>[Signature]</i> | DRAWING NO.<br>D2580                              | REV. C<br>SHEET 1 OF 2 |
| DATE<br>98.08.26              |                                | TITLE<br>205 SKIDTUBE ASSEMBLY                    | SCALE<br>NTS           |
| A                             | 96.09.16                       | NEW ISSUE   |                        |
| B                             | 96.12.02                       | AS MANUFACTURED                                   |                        |
| C                             | 98.08.26                       | REDRAWN, INCLUDED DEO 9094/9097                   |                        |

RELEASED  
98/09/17 DS

| QTY | Part Number   | Description       |
|-----|---|-------------------|
| X   | D2580-041   | SKIDTUBE ASSEMBLY |
| *   | D2500-1   | EXTRUSION         |
| 1   | D2596   | 205 WEB           |
| 1   | D2575   | AFT CAP           |
| 1   | D2576-3   | STEP              |
| 20  | D2579   | CROSS BOLT SPACER |
| 16  | D2594-1   | PLUG              |
| 16  | D2594-3   | O-RING            |
| 1   | D2577-1   | WEARSHOE          |
| 1   | D2577-3   | WEARSHOE          |
| 1   | D2577-5   | WEARSHOE          |
| 44  | ALS7-1032-130<br>or AKS7-1032-130<br>or AKS4-1032-130<br>or ALS4-1032-130 | INSERT            |
| 46  | AN3-4A  | BOLT              |
| 46  | AN960JD10L  | WASHER            |

UP 08.28  
UP 08.28

EFFECTIVE DEOS  
98/12/18  
DEO 9124  
DED 9183

#### GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) LENGTH OF D2500-1 EXTRUSION BEFORE BENDING = 190 INCHES \*
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (44 PLACES) AFTER FINISH. INSTALL AN3-4A BOLTS AND AN960JD10L WASHERS WITH SIKAFLEX-241.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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WITHOUT NOTICE  
WORK ORDER  
NO. 31181A

Diagram illustrating the grinding locations on the propeller hub. The hub is shown in cross-section with the following labels:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- GRIND FLUSH
- LOCATION RIDGE ON UNDERSIDE OF D2576
- D2576 STEP

DRILL PRIOR TO D2575 CAP  
INSTALLATION (2 PLACES)

#0.208

AN3-4A BOLT (1)  
AN960JD10L WASHER (1)  
(2 PLACES)

D2575 CAP

SEAL WITH SIKAFLEX-241

0.40

UNC  
SUB

D2579 SPACER

WEB (REF)

130 (REF)  
4 PLACES

AFTER PERFORM  
1. CHA  
2. INS  
3. WEI  
4. C'B

AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:


1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C-BORE D2579 SPACER TO #0.437 X 1.00 DEEP

[illegible]

Figure 1 is a plan view of a horizontal curve. It shows two circular arcs. The first arc has a radius of 13.4 and a central angle of 4 degrees. The second arc has a radius of 32.0 and a central angle of 4 degrees. The distance between the hole and the tangent point for the first arc is 1.0. The distance between the hole and the tangent point for the second arc is 1.0. The total distance between the two holes is 1.4. The curve is labeled with a grade of 0.640 and a vertical curve length of 20.0.

[illegible]

RELEASE  
98/09/17 DS

|                       |   |   |
|-----------------------|---|---|
| DESIGN<br><i>DAH</i>  | DRAWN BY<br><i>CP</i>                   |  <b>DART AEROSPACE LTD</b><br>MISSISSAUGA, ONTARIO, CANADA |
| CHECKED<br><i>DAH</i> | APPROVED<br><i>JS</i>                   |   |
| DATE<br>98.08.26      | DRAWING NO.<br><b>D2580</b>             |   |
|                       | TITLE<br><b>205 SKIDTUBE ASSEMBLY</b>   |   |
|                       | REV. C<br>SHEET 2 OF 2<br>SCALE<br>1:24 |   |

NO. 31181A

NO. 101

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name Barclay Elliott  
Joint Welding Procedure Tig  
Part number and Job number D205634041 / B31181 A

TEST WELDS REQUIRED

BASE METAL Alum WELDING PROCESS Tig  
Penetration Complete ☐ Partial ☒ Single Weld ☒ Double Weld ☐  
Current AC ☒ DC ☐ Backing YES ☐ NO ☒

|              | Position                    | Vertical                    | Down <input type="checkbox"/> | Up <input type="checkbox"/> |
|--------------|-----------------------------|-----------------------------|-------------------------------|-----------------------------|
| Sheet Groove | 1G <input type="checkbox"/> | 2G <input type="checkbox"/> | 3G <input type="checkbox"/>   | 4G <input type="checkbox"/> |
| Tube Groove  | 1G <input type="checkbox"/> | 2G <input type="checkbox"/> | 5G <input type="checkbox"/>   | 6G <input type="checkbox"/> |
| Sheet Fillet | 1F <input type="checkbox"/> | 2F <input type="checkbox"/> | 3F <input type="checkbox"/>   | 4F <input type="checkbox"/> |
| Tube Fillet  | 1F <input type="checkbox"/> | 2F <input type="checkbox"/> | 4F <input type="checkbox"/>   | 5F <input type="checkbox"/> |

Crossbolt Spacer Welded into Skidtube

TEST RESULTS

Visual Pass ☒ Fail ☐  
Penetration Pass ☒ Fail ☐

Crossbolt Spacer Pass ☒ Fail ☐

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

Date of Test Coupon 07/03/29 Qualifier David Newell

Date: Friday, 09/02/2007 9:59:35 AM  
 User: Linda Lacelle

## Process Sheet

|   |                                       |
|---|---------------------------------------|
| Customer : CC-DAR01 Dart Aerospace Ltd. | Drawing Name : D205-635 / D204-635    |
| Job Number : 30722                      |                                       |
| Estimate Number : 10804                 |                                       |
| P.O. Number : N/A                       | Part Number : Z-CUSTOM ECN952/908     |
| This Issue : 09/02/2007 S.O. No. : N/A  | Drawing Number : UPDATE PAPERWORK     |
| Prsht Rev. : NC                         | Project Number : N/A                  |
| First Issue : N/A Type : OVERHEAD       | Drawing Revision : N/A                |
| Previous Run : 00015                    | Material : N/A                        |
| Written By : _____                      | Due Date : 16/02/2007 Qty: 1 Um: Each |
| Checked & Approved By : _____           |                                       |
| Comment : _____                         |                                       |

## Additional Product

Job Number:



|         |                       |               |
|---------|-----------------------|---------------|
| Seq. #: | Machine Or Operation: | Description : |
|---------|-----------------------|---------------|

|     |             |                       |
|-----|-------------|-----------------------|
| 1.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
|-----|-------------|-----------------------|



Comment: PACKAGING RESOURCE #1

ADD NEW PAPERWORK TO KITS IN STOCK

TC STC SH96-88, ISSUE 3 / FAA STC SR00563NY

D205-634-011

D205-634-041

D205-634-043

D205-634-045

D204-635-011

D204-635-041

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 avec ✓

7/4/27 SQ

|     |             |                       |
|-----|-------------|-----------------------|
| 2.0 | PACKAGING 1 | PACKAGING RESOURCE #1 |
|-----|-------------|-----------------------|



Comment: PACKAGING RESOURCE #1

RETURN TO STOCK

7/4/27 SQ